

FULWOOD URBAN DISTRICT COUNCIL.

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# REPORT

OF THE

MEDICAL OFFICER OF HEALTH

For the Year ending 31st. December, 1952.



PUBLIC HEALTH DEPARTMENT,  
"LARCH HOUSE",  
4, LYTHAM ROAD,  
FULWOOD,  
LANCS.

## REPORT OF THE MEDICAL OFFICER OF HEALTH.

For the Year ending 31st December, 1952.

To the Chairman and Members of the Urban District Council of Fulwood.

Mr. Chairman, Lady and Gentlemen,

I have the honour to present my Annual Report on the health of Fulwood for the year ending 31st December, 1952. It follows the lines established in former years by presenting the Vital Statistics supplied by the Registrar General and the County Health Department, and in addition the details of the work of the Health Department which naturally comprise the major portion of the report. As the health of a community is determined by environmental factors additional to those under the control of the Medical Officer of Health, appended to the report are summarised accounts of the work of the Surveyor and the Water Engineer, giving information of those parts of their work which could reasonably be held to have some influence on the domiciliary life and health of the district.

Strong representations have been made by the Ministry of Health and by the County Medical Officer of Health for the earlier production of Annual Health Reports on the grounds that late reports have lost much of their value. This would appear to be entirely laudable and even desirable, but it is necessary to point out that the delay in the production of reports in past years was due to the late arrival in the succeeding year (usually the middle of the year) of those statistics from the Registrar General upon which the Mortality and other rates were based. The figures supplied by the Registrar General have not proved infallible, indeed on occasions have been returned for correction, but there would appear to be no reason apparent why an earlier issue of these statistics should not be made. Unquestionably the late production of a report, whilst it may gain something in perspective, does lose much in news value. In accordance therefore with these reasonable requests an endeavour has been made to complete this report at an earlier date.

Emphasis has been laid in former reports upon the difficulties which the National Health Service Act has produced in the assessment of the amount of sickness present in the district by the retention of information which had been previously available. The numbers and the causes of deaths do, it is true, give some indication of the more serious forms of illness, but the health, wealth, and happiness of any community are more dependent upon those indispositions which are debilitating than upon those which are mortal. Certain figures supplied by the Ministry of National Insurance have assisted to remedy this deficiency in information so far as the insured population was concerned, but for the population as a whole there were no means of assessment. Scientific estimations are always difficult to produce, especially when the totals upon which they are based are small, but a paucity of information almost renders the task impossible. (The Medical Research Council are carrying out a sectional enquiry which may yield results of some value.)

Fulwood, although its population is not large, possesses a number of residential institutions, some for the education of the young, and others of the hostel type for the declining years of the aged. It has been decided by the Ministry of Health that from the beginning of 1953 all deaths which occur in these hostels, whether the original residence of the deceased is known or not, shall be credited to the district in which the hostel is situated. In future years therefore the death rate of this district will show an increase which scientifically will bear no relation to the actual health of the district.

So far as is known or could be ascertained the health of the district in 1952 was satisfactory, and was not disturbed by any epidemic of diseases of the influenzal or respiratory types. A considerable number of cases of Measles was reported but the disease, though highly infectious, was of a mild type and unaccompanied by unpleasant after effects. Scarlet Fever, also mild in type, produced slightly more than the average number of cases but never appeared in epidemic form. Attention must be drawn however to the large number of cases of Puerperal Pyrexia notified from Sharoe Green Hospital, four times the number notified in the previous year. Whether this increase is due to better notification or to an actual increase of cases it would be difficult to decide in view of the changes of staff which take place so frequently. It would, however, be unfortunate if those lessons learnt in the past in the hard school of experience became lost, and the newer,

but less stringent, methods of dealing with infectious diseases gave rise to an increased incidence. It would be unsafe to base conclusions upon an increased number of cases of Scarlet Fever in a twelve month period but on the other hand it would be foolish to neglect certain other signs which would appear to indicate the necessity for correction and improvement. The relaxation of those stringent measures for the isolation of the case, the return from hospital of the patient at a much earlier date, the lax and tardy methods of notification, and above all the failure to ensure that the patient is quite free of all catarrhal conditions before returning home, are one and all details which must not be forgotten when trying to assess the reason for the increased number of cases of Scarlet Fever. Certainly the disease is mild and its sequelae rare, but with an increased number of cases the possibility of an increased virulence must not be lightly dismissed.

There was a small increase in the number of notifications of Tuberculosis and here again it is feared that the environmental aspects of this disease are being lost, and the patient treated as a chest case rather than a potential source of danger to his immediate contacts.

The importance which food has assumed in the eyes of the public in the last decade of years has required increased attention to the purity of all those articles of food which have been in short supply. As in past years particular attention has been devoted to pure milk, pure ice cream, freshness of meat and the sound quality of foodstuffs generally. The handling of food for sale, during cooking, and in storage are unsatisfactory, and education of the general public on these matters most desirable.

In last year's Report comment was made upon the working of the new arrangements in the control of milk production; much of the detailed groundwork carried out in past years in this district was apparently being lost. In 1952 there was some improvement in the number of satisfactory samples. The bacteriological tests upon Tuberculin Tested milks were quite unsatisfactory and strong protests were made to the Ministry of Agriculture on this account. It was obvious that there was insufficient and inefficient control at the milk producing farms. As a result of the protest and interviews with one of the officials, the position showed welcome improvement towards the end of the year.

The frequent sampling of ice cream, and the numerous inspections of the establishments retailing this product, not only in 1952 but in past years, have produced satisfactory results. With the continued shortages of suitable fats and other materials of definite food value, the quality of ice cream has not yet attained its pre-war level but the bacteriological purity is now definitely superior.

No definite alterations have been observed in the handling and in the methods of storage of food. It is abundantly clear that improvements in these methods must be regarded as a long term policy and a matter for intensive education and practical training. Fortunately very few cases of food poisoning were notified though it is very doubtful whether the number notified represents more than a percentage of the actual number of cases. Peptic ulcers, so markedly increased in number since the war period, cannot definitely be attributed to the quality and character of the food available to the individual, but in common with certain other diseases of the circulation must be influenced by the increasing velocity of life and the mental and physical stress required to keep pace.

Meteorological conditions apart from their direct influence upon the physical conditions, add to or detract from the mental outlook, and therefore do exert a quite material influence upon the health of a community. Therefore the section upon the weather experienced during the year is again included. On the whole it was rather a wet year but less so than 1951. August, that overrated holiday month, was one of the wettest of the year, and December with its fog and blanket of low cloud was most unpleasant. Once again the high rainfall and the absence of long periods of warm dry weather prevented those streams in the north side of the district from exhibiting their usual unpleasant odours and their extensive fouling of the banks of the streams. Fortunately the Governmental Departments, as the result of representations and strong adverse sanitary reports upon these conditions, relaxed the embargo upon expenditure, and it was possible to start and to make substantial progress with the sewerage of part of that area, and in addition to make up and surface many roads there, the conditions of which had been somewhat of a reproach to the district. Much of this work still requires to be carried out, but its completion is dependent upon the further relaxation of the financial stringencies imposed by the Governmental Departments concerned.

The provision of increased facilities for the treatment and disposal of sewerage is still under discussion, and the completion of the scheme for the sewerage of the whole northern part of the district is dependent upon greater capacity for the treatment of sewage. Further details of the work undertaken will be found in Mr. Elce's report appended



Part of the South Eastern part of the district, as part of the agreement between this authority, Lancashire County Council and Preston County Borough, was transferred to the Borough, thus reducing the area of the Urban District and making a certain reduction in the number of inhabited houses.

There are still many applications on the housing lists but the total number is much less than in former years. Housing, apart from deficiency in numbers, has never been a problem in Fulwood. The houses are well built, of a good type, and the number of substandard dwellings is very small indeed. As the average age of the inhabitants of the area is high and there are many individuals of advancing years the needs for houses suitable for these persons must be borne in mind.

The statistics supplied by the Registrar General were again, as in the past two years, of the fuller type and contained the comparability factors for births and deaths in order that the figures for this district can be compared with those of other districts.

Unfortunately the number of deaths credited to this district were so much out of proportion to those of former years, and so much at variance with the figures possessed by the Health Department, corrected by inward and outward transfers, that it was found necessary to return them for correction to the Registrar General. The figures used for deaths therefore were those possessed by the Health Department as it was not considered desirable further to delay the completion of the Report.

The number of deaths was less than in the previous year, probably due to the absence of Influenza, and the number of births was also less. The infantile Mortality rate (19) was similar to that of the previous year, a very low rate indeed. The Maternal Mortality rate was again nil.

The estimate of population showed a slight diminution.

#### **Physical Features of the Area.**

The area covered by the Urban District is roughly oblong in shape, the long axis lying East and West. The height of the district above the datum line is 190 feet in the North East sloping downwards to 55 feet in the South East. Gentle rises and falls characterise the whole area.

Three streams—Savick Brook, Sharoe Brook and Eaves Brook flow through the district from East to West. Eaves Brook forms the southern boundary of the area and separates the Urban District from the County Borough of Preston.

Geologically the area forms part of the Lancashire Plain which is floored with red rocks of the Triassic age (specimens of these rocks may be seen at the base of the cliffs at Blackpool). Most of these rocks are impermeable but there is a fault consisting of Bunter Sandstone which is considered to run from South East to North West through part of the district and which is water bearing. Superficial to these rocks there is Glacial Drift which varies in depth between 90 and 130 feet and consists of three layers—the Lower Boulder Clay, the Drift Sand, and the Upper Boulder Clay. These three layers vary in individual thickness in different parts of the district. In the North Eastern portion there are many bluffs composed entirely of Drift Sand with a covering of Upper Boulder Clay of varying thickness. Some of these bluffs have a central core of clay and a surround of sand. All the bluffs rest upon a base of Lower Boulder Clay many feet thick. In the Western side of the district the Upper Boulder Layer is over twenty feet in thickness, resting upon upwards of 30 feet of sand with a layer varying in depth of Lower Boulder Clay underneath. The Triassic Rock Layer is a little above the existing sea level but forms an inclined plane rising to the Pennines and the Glacial Drift Layers upon it sometimes reach a depth of 170 feet.

The pebbles and boulders found in the drift layers consist of Yoredale Grits, Limestone, Lakeland Traps, Granites, Volcanic Ash brought mainly from the Lake mountains by ice movement. Occasionally granite from Criffel may be found. Water bearing seams occur at the surface of the Lower Boulder Clay and on thin beds of clay in the Middle Drift.

#### **Meteorological Characteristics of 1952.**

Grateful acknowledgment must be expressed to Mr. Tuson, Chief Education Officer of Preston Corporation, and to Dr. Barocas, Director of the Jeremiah Horrocks Observatory Preston, for their report for 1952 from which many details of this section were obtained and to Mr. Blossom and Mr. Parkinson, of the County Institute of Agriculture, Hutton, for further useful information about weather conditions. Mr. Holmes, Water Engineer, has also supplied details of the rainfall in the water catchment area which can be compared with that in the area of the Urban District itself.

The year 1952 was on the whole a somewhat wet year though not nearly so wet as 1951. The total rainfall was 36.42 inches which was 8.83 inches less than in 1951 and 1.12 inches less than the average.

August was as usual the wettest month of the year and on August 9th this district had its wettest day for eleven years when  $1\frac{1}{2}$  inches of rain fell in the 24 hours. Almost two inches of rain fell in the week-end 9th to 11th August. This was the week-end when the Lynmouth flooding disaster took place and actually was the disastrous end of the very wet Bank Holiday week. On Tuesday in that week over an inch of rain fell during a thunderstorm and the district was covered in the late afternoon by a thick blanket of cloud which quickly precipitated. Many of the low lying parts of the Preston area were quickly flooded. The Bank Holiday week-end itself was a miserable one with gales, rain, and low temperatures.

The driest month of the year was February (which thus failed to live up to its name of Fill Dyke) with a total rainfall of approximately half its usual average.

The Winter and Autumn in 1952 were drier than usual but Spring and Summer were wetter than average. The rainfall in the Summer months was one-third of the total for the whole year.

The longest dry spell was from November 24th to December 2nd. September was a bright and sunny month but with temperatures below the normal especially at night. There were early frosts and the last week provided wild weather with gales reaching 70 miles per hour, terrific rain and very low temperatures at night.

November in spite of its dry last week was a very unpleasant month for weather with violent rain storms (almost one inch of rain fell on the 4th) gales of wind (on the 6th the wind reached 94 miles per hour at Bolton) and the temperatures were low with much frost and snow.

The average temperature for the year was almost  $1^{\circ}$  lower than the average. The Spring was warmer than usual with sunshine and fine weather in May. The Summer and Autumn periods were colder than the average. May had temperatures almost 4 degrees warmer than usual and in this month, on the 17th,  $80^{\circ}\text{F}$  was reached. September was almost  $6^{\circ}\text{F}$  colder than usual. July lived up to its normal reputation and was the warmest month of the year whereas January was the coldest. November was almost  $5^{\circ}$  colder than usual.

During the year, snow fell on 24 days and hail on 15 days. Thunder was heard on 18 days. Fog was present on 67 days but on only three of those days was the fog so thick that the visibility was less than 40 yards and never approximated the pea soup variety experienced by the London area in the first week in December.

Gales were experienced on seven days in the year. Apart from those already mentioned, the wind velocity reached a high level on December 17th in the morning when many trees were uprooted locally and structural damage to buildings occurred. The speed of the wind varied between 75 and 90 miles per hour.

There were 32 days without wind.

Winds from the moist quarters, South, South-West and West, blew respectively on 6, 14, and 44 days. Winds from the South-East and East blew on 12 days only, whereas from the North-East and North-West, usually dry quarters, the wind blew on 23 and 18 days respectively.

Although 1952 was less wet than 1951 it had more than 100 hours less sunshine. May had the greatest number of hours sunshine and December the least.

The table below gives the weather summary for the year :—

Month				Rainfall at Barnsfold inches	Rainfall in the District inches	Number of rain days		Hours of Sunshine		Prevailing wind days	
January	...	...	...	4.71	3.58	21	...	49.7	...	W 7	
February	...	...	...	1.62	1.29	13	...	75	...	W 7 calm 9	
March	...	...	...	2.97	1.77	12	...	96.1	...	SE 7 NE 7	
April	...	...	...	4.42	3.07	18	...	126	...	SE 5 SW 5 calm 6	
May	...	...	...	2.64	2.01	16	...	185.1	...	S 6 NW 6	
June	...	...	...	4.84	3.55	15	...	164.7	...	W 13	
July	...	...	...	2.37	1.90	18	...	132.5	...	W 11	
August	...	...	...	7.63	5.73	17	...	138.8	...	SW 9	
September	...	...	...	4.35	4.69	19	...	90.6	...	NE 9	
October	...	...	...	3.91	2.64	20	...	91.6	...	W 6	
November	...	...	...	2.53	2.27	16	...	71.3	...	NE 7 NW 7 calm 9	
December	...	...	...	4.93	3.92	23	...	26.7	..	NW 5 calm 8	
Total	...	...	...	46.92	36.42	210	...	1248.1			

#### Statistics and Social Conditions of the Area.

Area in Acres	...	...	...	...	...	...	...	...	3,164
Population (Census 1931)	...	...	...	...	...	...	...	...	7,387
Registrar-General's estimate of population (mid 1952)	...	...	...	...	...	...	...	...	13,170
Number of inhabited houses (Census 1931)	...	...	...	...	...	...	...	...	1,501
Number of inhabited houses (rate book 1952),...	...	...	...	...	...	...	...	...	3,608
Rateable value	...	...	...	...	...	...	...	...	£88,955
Sum represented by a penny rate	...	...	...	...	...	...	...	...	£359

The differences in some of these figures, when compared with those of the previous year, are due to the transference of portions of the Eastern part of the district to Preston Corporation.

#### Social Conditions and Amenities of the District.

The district is almost entirely a residential one with wide streets and avenues, excellent housing and through it runs from South to North the vital highway A.6. On the periphery of the area there are dairy farms and a small amount of cultivation. Many of the avenues where houses were built just before the war and since the termination of the war have not yet been made up and surfaced. A steam laundry employs local labour and is the largest industrial concern in the district.

Representing the various denominations in the area there were seven churches, and four of these possess church halls which are used for religious and social activities. Concerts, dances, dramatic entertainments and lectures were held in these halls throughout the year.

There are two branches of the County Council Library in the district, one in the northern part and one in the south-eastern.

Recreation and sport are well catered for by a Golf Club, three Tennis Clubs, a Bowling Club, bowling greens at hotels, a Sports Club, and a Youth Centre with sports sections.

In the two County Council Schools in the district there were many activities in the evenings, and in one denominational residential school a successful band has been in existence for many years.



Many local organisations provided lectures, debates, and discussions upon national and international affairs as well as those of local interest.

There are several Institutions in the area, some provide residential accommodation for the aged and others for the education of the young.

There was no evidence of unemployment among the inhabitants of the district in 1952.

### Vital Statistics.

#### Births.

Live Births.—	M.	F.	Total
Legitimate ... ..	71	77	148
Illegitimate ... ..	2	4	6
	<hr/> 73	<hr/> 81	<hr/> 154
Birth rate per 1,000 population—Crude ...	11.7.		
Adjusted ...	13.4.		
Still Births—	M.	F.	Total
Legitimate ... ..	2	5	7
Illegitimate ... ..	—	—	—
	<hr/> 2	<hr/> 5	<hr/> 7
Rate per 1,000 total (live and still) births ...	43.		

#### Deaths.

	M.	F.	Total
	89	91	180
Death rate per 1,000 estimated population—Crude ...	13.7.		
Adjusted ...	11.8.		
Comparability factors—For births ...	1.15.		
For deaths ...	0.86.		

#### Maternal Mortality.

Deaths from pregnancy, child births and abortion ...	Nil
Mortality rate per 1,000 births (live and still) ...	Nil

#### Infantile Mortality.

All infants per 1,000 live births ...	19
Legitimate infants per 1,000 legitimate live births ...	19
Illegitimate infants per 1,000 illegitimate live births ...	Nil

#### Neo-Natal Mortality.

Death of infants under 4 weeks of age ...	3
Mortality rate per 1,000 live births ..	19

#### Other Mortalities.

Deaths from Cancer (all ages all sites) ...	27
Deaths from Pulmonary Tuberculosis ..	3
Deaths from Puerperal Causes ...	Nil
Deaths from Measles ... ..	Nil
Deaths from Whooping Cough ...	Nil
Deaths from Diarrhoea (under 2 years) ...	Nil



Table of Comparative Statistics

	Per 1,000 estimated population						Maternal Mortality Rate		Infantile Mortality Rate
	Live birth-rate		Death-rate		Death-rate from respiratory tuberculosis	† Death rate from cancer	Per 1,000 live births	Per 1,000 total (live and still) births.	Deaths under 1 year per 1,000 live births.
	Crude	Adjusted	Crude	Adjusted					
<b>FULWOOD</b>									
Mean of 5 years -									
1941-45 ...	13.6	*	15.0	*	0.38	-	3.67	3.55	43
1946-50 ...	13.9	*	15.3	*	0.43	-	1.18	1.15	43
Year - 1950	12.7	14.1	15.6	13.6	0.18	2.05	nil	nil	36
Year - 1951	13.4	14.9	16.3	12.8	0.15	1.5	nil	nil	18
Year - 1952	11.7	13.4	13.7	11.8	0.15	2.20	nil	nil	19
County of Lancaster, 1952	14.34	14.63	12.24	12.48	0.20	2.01	N.A.	0.83	30
England and Wales, 1952	15.3	-	11.3	-	0.24	N.A.	N.A.	0.72	28

**Population.**

The population of Fulwood in the census of 1931 was 7387. In this number there were some 2,000 persons resident in institutions. It is estimated that in 1952 the number of residents in these institutions was approximately the same as in 1931.

For 1952, the Registrar-General's estimate of population of this district was 13,170.

The variation in population was accounted for by the transference of that portion of the District (Watling Street Road East) to Preston County Borough and the building of some new houses.

**Deaths and Death Rates.**

The tables given below are corrected for inward and outward transfers. Both crude and adjusted death rates were 13.7 and 11.8.

In future years the number of deaths and the death rates will show higher figures as the result of a recent decision of the Registrar-General's Department that all deaths in institutions, whether the place of residence of the deceased is known or not, are to be credited to the district in which the institutions are sited. There would not appear to be much logic or reason for this ruling save to ease calculation at the centre.

### An Analysis of the Causes of Death, 1952.

Heart Diseases—	M.	F.	Total
Coronary Diseases (Angina) ... ..	10	8	18
With Hypertension ... ..	4	8	12
Other Heart Diseases ... ..	17	25	42
Diseases of the Circulation ... ..	5	2	7
Vascular lesions of the Nervous System ... ..	13	18	31
Malignant Diseases (all sites and all ages) ... ..	14	13	27
Bronchitis ... ..	5	2	7
Pneumonia ... ..	2	2	4
Other Respiratory Diseases ... ..	1	1	2
Influenza ... ..	—	—	—
Pulmonary Tuberculosis ... ..	2	1	3
Ulcers of Stomach and Duodenum ... ..	3	—	3
Gastritis, Enteritis and Diarrhoea ... ..	3	1	4
Diabetes ... ..	1	2	3
Nephritis and Nephrosis ... ..	—	—	—
Hyperplasia of Prostate ... ..	—	—	—
Congenital Malformations, Prematurity ... ..	—	2	2
Infective and Parasitic Diseases ... ..	—	3	3
Other defined and ill-defined Diseases ... ..	3	4	7
Motor vehicle Accidents ... ..	2	—	2
Other Accidents ... ..	4	—	4
Total ... ..	89	91	180

#### Deaths from Tuberculosis.

There were three deaths from Respiratory Tuberculosis and none from the Non-Pulmonary types.

#### Deaths from Malignant Diseases.

There was an increased number of deaths from Cancer and other forms of malignant diseases (27 as opposed to 20 in 1951). One quarter of these deaths were due to Cancer of the Lungs and Bronchi. This form of the disease has shown a remarkable increase in recent years. There would appear to be a strong presumptive evidence that tobacco smoking, especially cigarette smoking, plays a prominent part in the causation. Atmospheric smoke and the fumes of petrol, burnt and unburnt, are known to have some bearing upon the increased number of deaths from this form of Malignant Disease.

It is hoped to make an investigation into each death occurring from Cancer of the Lungs in future years in order to ascertain any factors which might have a bearing upon this remarkable increase in mortality.

In the country as a whole more deaths were due to Cancer of the Lungs and Bronchi than to Pulmonary Tuberculosis.

#### Deaths from Diseases of the Heart.

These diseases produced the largest number of deaths in 1952 in this district. This was similar to the position in former years and the proportion between the various classifications did not exhibit any significant variation from that of previous years.

#### Deaths from Respiratory Diseases.

These were rather less than in the preceding year. The absence of Influenza from the district probably accounts for the diminution.

### Infantile Mortality.

The rate for 1952 was similar to that of 1951, i.e., 19. This figure is again below that for Lancashire and for England and Wales.

### Infantile Deaths.

Under 1 year—		M.	F.	Under 4 weeks—		M.	F.
Legitimate	...	1	2	Legitimate	...	1	2
Illegitimate	...	—	—	Illegitimate	...	—	—
		<hr/>	<hr/>			<hr/>	<hr/>
		1	2			1	2
		<hr/>	<hr/>			<hr/>	<hr/>

The causes of death were as follows :—

								M.	F.
Gastro Enteritis	Adrenal	Haemorrhage	...	...	...	...	...	1	—
Haemorrhagic	Pneumonia	Tumour	Naso	Pharynx	...	...	...	—	1
Anencephaly	...	...	...	...	...	...	...	—	1
								<hr/>	<hr/>
								1	2
								<hr/>	<hr/>

### General Provision of Health Services in the Area.

**Medical Officer of Health :** G. G. Wray, M.D., Ch.B., D.P.H. (Not in general Practice).

#### OTHER PUBLIC APPOINTMENTS—

M.O.H. Walton-le-Dale U.D.C.

**Sanitary Inspector :** R. Graham, M.R.San.I., Nat.Dip.Agri. (Whole time.)

**Certifying Factory Inspector :** Mr. A. Toulmin, Ribblesdale Place, Preston.

### Laboratory Service.

The Government District Laboratory, sited in Preston Royal Infirmary, provided the technical assistance necessary for the examination of bacteriological and pathological specimens. It also carried out the bacteriological tests of milk, ice cream, water, faecal material, and blood submitted to it by the authority and issued reports upon these materials.

Under this arrangement the Local Authority is no longer responsible for the cost of examination, but is also no longer supplied with the results except when the specimens are sent in by the Authority.

Chemical analyses are usually carried out by the County Analyst.

### Hospital Service.

Under the National Health Service Act all persons suffering from any form of indisposition are treated in the hospitals without cost to themselves.

The hospitals under the control of Regional Hospital Boards are administered locally by the Preston and District Hospital Management Committee, and are as follows :—

#### For General Diseases and Maternity—

Preston Royal Infirmary.  
Sharoe Green Hospital.  
Chorley Hospital.  
Eaves Lane Hospital, Chorley.

#### Annexes—

Lostock Hall Convalescent Hospital.  
Longsands Lane, Fulwood, Continuation Hospital for Orthopaedics.

**For Infectious Disease and Tuberculosis—**

Deepdale Road Isolation Hospital, Preston.

Heath Charnock Hospital, Chorley.

Chestnuts Sanatorium, Preston.

Elswick Sanatorium.

Elswick Small Pox Hospital.

MOUNT STREET, HOSPITAL, PRESTON, FOR MEDICAL, SURGICAL AND MATERNITY CASES, IS NOT UNDER THE NATIONAL HEALTH SCHEME.

**Malignant Diseases.** A special section of Preston Royal Infirmary officered by personnel from the Christie Cancer Hospital, Manchester, was used by patients from this district. X-ray, Radium, Isotopes, and other forms of treatment were available. Where necessary patients were admitted to the Christie Hospital for more extensive or more specialised treatment.

**Ante-Natal Services.** The clinics formerly provided at Preston Royal Infirmary and Sharoe Green Hospital by the hospitals and the County Council jointly are now provided by the Hospital Management Committee. No details were issued by the Hospitals to this Authority of the numbers of women who attended from this district but doubtless they were extensively used.

**General Diseases.**

The accommodation and the facilities for treatment of persons suffering from diseases or disabilities in hospitals are enumerated above, but the absence of accurate information, or indeed of information of any kind, of the extent of the use of these hospitals by the inhabitants of this district renders it impossible to assess a morbidity rate for the area or to comment upon the increased use or otherwise of these facilities.

The Chief Officer of the local branch of National Insurance, Mr. Ambler, has, as in former years, kindly supplied figures of the number of claims for National Insurance for each month in the year. These figures apply only to the insured population, do not include self-employed persons, and exclude ages under or over the insurable ages.

As the average age of the inhabitants of Fulwood is higher than that of more industrialised areas and there are many self-employed persons in Fulwood, complete accuracy would be very difficult to obtain, and these figures can only be used as indices of the seasonal rises and falls of sickness and for comparison between year and year.

						Average number of new claims per week	Average total of claims paid per week
January	...	...	...	...	...	86	392
February	...	...	...	...	...	40	193
March	...	...	...	...	...	32	139
April	...	...	...	...	...	22	104
May	...	...	...	...	...	18	89
June	...	...	...	...	...	19	78
July	...	...	...	...	...	15	75
August	...	...	...	...	...	14	71
September	...	...	...	...	...	17	88
October	...	...	...	...	...	28	123
November	...	...	...	...	...	27	109
December	...	...	...	...	...	25	92
						343 (average 28)	1563 (average 130)



The number of new claims per week was fractionally less in 1952 than in 1951 and the total number of absentees from work each week was also slightly less.

As Influenza was absent or practically absent throughout the year a greater reduction in these figures might have been expected.

As in the previous year those persons who reported sick with " Ill defined symptoms " formed the largest class. Rheumatism and Respiratory Diseases also formed consistently large classes in each quarter of the year.

### Services of the County Council in the Area.

#### Child Welfare.

One child welfare centre, established in this area in 1944, met weekly throughout the year at the Parochial Hall, Victoria Road, each Wednesday afternoon. There was a slight fall in the number of children attending but a considerable increase in the number of attendances.

	No. attending	No. of attendances
Children under one year of age ... ..	165	1831
Children from one to two years ... ..	85	393
Children over two years ... ..	59	155
	<hr/> 309 <hr/>	<hr/> 2379 <hr/>

The number of sessions held was 49.

The number of babies under one year in attendance represents over 95 per cent. of the babies born in the year.

At this Child Welfare Centre each baby is examined, weighed and inspected, at frequent intervals. If treatment is required it is given or arranged. In addition, the Health Visitor made frequent visits to the homes to advise, to examine, to follow up treatment or to make arrangements for it.

#### School Children.

Routine medical inspections of the children were made in the schools and the School Nurse made frequent visits and inspections throughout the year.

In addition the School Nurse made many visits to the homes of the children for the purpose of following up treatment prescribed for the children or where it was considered desirable to keep them under observation.

An interview with the County Medical Officer of Health was held to discuss the provision of a School Clinic in this area. The County Medical Officer of Health was aware of the need for this and gave assurance that every effort was being made to secure a suitable building for the purpose. Meanwhile, where necessary, the children can receive advice and treatment at Longridge School Clinic for minor ailments, ophthalmic and dental conditions.

The County Council scheme of treatment at the Hospitals was extensively used. (Tonsils and Adenoids, Ear Diseases, Eye Conditions, Orthopaedics, etc.)

The Centre for Speech Defects and for Therapy at Spring Bank in Preston was available for children from this area.

#### Tuberculosis.

The County Council provides the buildings for the Dispensaries, and the Tuberculosis Health Visitors. The Dispensary for this area was situated in Waltons Parade, Preston, and there inspection, examination, X-ray, Light treatment and other forms of treatment were provided.

Hospital and Sanatorium accommodation were provided by the Regional Hospital Board. This division of control worked very inefficiently in its early stages after the change over but has improved considerably in the last two years. Much, however, has been lost which cannot be regained under a divided control. Tuberculosis is not merely a disease of the lungs. It affects many parts of the body and its control is a complex problem. The disease must be regarded as an environmental one, requiring all the forces of Preventive Medicine to be used if spread is to be prevented. Although there has been a steady falling mortality from the disease over the last fifty years, it still represents one of the greatest causes of deaths from disease. During the last few years the male deaths have tended to occur in the later age groups (45 to 60), whereas in females the deaths have tended to occur in the 15 to 25 group.

### Tuberculosis Notifications and Deaths.

1952

Age Period Years	New Cases				Deaths			
	Respiratory		Non-Respiratory		Respiratory		Non-Respiratory	
	M	F	M	F	M	F	M	F
0—1	...	...	...	...	...	...	...	...
1—5	...	...	...	...	...	...	...	...
5—10	...	...	1	...	...	...	...	...
10—15	...	1	...	1	...	...	...	...
15—20	1	1	...	...	...	...	...	...
20—25	1	1	...	...	...	...	...	...
25—35	1	...	...	...	1	...	...	...
35—45	1	...	...	...	1	...	...	...
45—55	...	...	...	...	...	...	...	...
55—65	...	...	...	...	...	...	...	...
65 up	...	...	...	...	...	1	...	..
Totals	4	3	1	1	2	1	...	...
	7		2		3		Nil	

### Tuberculosis Treatment.

Number of admissions to Hospital or Sanatorium—6.

Number removed from the Register as recovered—4.

Number of deaths—3.

Remaining on the Register, December, 1952 (M. 24, F. 26)—50.

### Ambulance Service.

This was one of the services originally delegated by the County Council to the Health Division and still partially administered by the Division. In Fulwood, however, the Preston Corporation Service discharge the function by arrangement with the County Council. This arrangement may be varied in the future but in 1952 it appeared to work satisfactorily and all cases of sickness and accidents were transported to and from the hospitals. Sitting cases were conveyed in sitting case cars.

In an emergency, vehicles from Penwortham or Walton-le-Dale stations could be called.

### **Domiciliary Nursing and Midwifery Service.**

In this area domiciliary nursing and midwifery are carried out by the same staff who therefore act as District Nurse Midwives. Three of these nurses are resident in the district.

Miss Margaret E. Johnson, S.R.N., S.C.M.

Miss Elizabeth Johnson, S.R.N., S.C.M.

“ Brynville,” Cadley Causeway, Fulwood. Telephone: Preston 86368.

Miss Slack, S.R.N., S.C.M.

“ Silver Howe Bungalow,” Lightfoot Lane, Fulwood. Telephone: Broughton 176.

The number of maternity cases attended by them was 19, a further reduction in numbers on preceding years. The tendency of expectant mothers to seek hospital facilities for the birth of their babies has continued. Financially the prospective parent gains a considerable advantage by seeking admission to hospital, and is spared the slight domestic upset which parturition involves as well as freedom from household cares.

Information about the number of cases nursed in the home and the number of visits made for that purpose could not be obtained from the Health Division. Undoubtedly the service had been used but whether to the full extent can only be surmised.

### **Immunisation against Diphtheria.**

This service was one of those delegated to Health Division No. 4 and the Divisional Medical Officer (Dr. Walker) supplied the following details.

Number of children under school age—109.

Number of children of school age—14.

Number of children reinforced—210.

These figures show a slight decrease in the number of children immunised for the first time but a good increase in the number of reinforcements.

Some children of this district must have been immunised privately, many doubtless in conjunction with prophylactic doses against Whooping Cough, but it would be difficult to ascertain these numbers.

There would appear to be less keenness on the part of parents to protect their children against Diphtheria. It would indeed be a tragedy if through any casualness Diphtheria once again became epidemic. With the reduction in hospital beds now available for Infectious Diseases it would be very difficult indeed to deal with an epidemic of Diphtheria.

### **Vaccination.**

Again a service delegated to the Health Division and the Divisional Medical Officer has supplied the following figures :—

Number of primary vaccinations—163.

Number successful—151.

Number of re-vaccinations—65.

Number successful—64.

These numbers show a substantial increase over those of 1951.

## **ENVIRONMENTAL SERVICES.**

### **The Prevalence and Control of Infectious Disease.**

Comments have been made earlier in this report upon various aspects of Infectious Disease. None of the outbreaks caused problems or difficulties in control though the mildness of the various types made it more difficult to trace the source of infection as many cases were not recognised or notified.

The total number of cases notified showed a 50 per cent. increase over the previous year. The increased numbers were due to Measles, Scarlet Fever, and Puerperal Pyrexia.

Chicken Pox was made notifiable for a period of six months owing to the occurrence of Small Pox in a fairly adjacent area, but there were not many cases notified. All were visited.

Only one case of Food Poisoning was notified, but doubtless many cases of a mild character were never reported.

All cases of Infectious Disease were individually investigated and attempts made to trace the source of infection. This of course required considerable expenditure of time increased, where it was considered necessary, by the disinfection of the house, bedding, clothing and books.

Communications by telephone or by letter with adjacent and distant authorities about cases of Infectious Disease or contacts thereof also occupied much time.

The tracing of contacts notified by the Ministry or by other authorities called for many visits to be made.

Much of this work, though time consuming, does not always yield results of great practical value, but it cannot be disregarded if efficiency in control is to be considered as a worthy goal.

Ten pathological specimens from enteric and other types of cases were taken and submitted to the Bacteriologist at Preston Royal Infirmary for examination.

The cases of Dysentery all occurred in nurseries owned and run by the adjacent County Borough.

Comment has already been made upon the cases of Puerperal Pyrexia all of which occurred in Sharoe Green Hospital.

The cases of Pneumonia notified represent but a small proportion of the number actually occurring. On many occasions the number of deaths from the disease exceeds the number of cases notified. As most of the cases were treated in hospital the blame for failure to notify must be placed upon the staffs of the hospitals.

#### Notifiable Diseases (other than Tuberculosis.)

Notifiable Diseases	Total Cases All ages	Total Cases Notified												Total Deaths	Hospital	
		Age Periods—Years										Cases remvd. to Hospital	Death in Hospital			
		Under 1	1	3	5	10	15	25	45	65 up						
1952																
Scarlet Fever .....	32		1	4	24	1	1	1	...	...	...	16	...			
Measles (excluding rubella) .....	113	4	19	38	51	...	...	1	...	...	...	...	...			
Whooping Cough .....	15	1	4	5	4	..	1	...	...	...	..	...				
Acute Pneumonia (Prim. & Infl'z'l) .....	4	...	1	...	...	...	...	2	1	...	1	...				
Puerperal Pyrexia .....	39	...	...	..	...	19	20	..	...	...	39	...				
Dysentery .....	12	2	4	2	1	...	...	3	...	...	8	..				
Ophthalmia Neonatorum .....	2	2	...	..	...	...	...	...	...	...	2	...				
Erysipelas .....	2	...	...	...	...	...	...	2	...	...	...	...				
Food Poisoning .....	1	...	...	...	...	...	...	1	...	...	...	...				
Chickenpox .....	8	1	...	3	2	1	...	1	...	...	...	...				
TOTALS .....	228	10	29	52	82	2	20	27	5	1	Nil	66	Nil			



## INSPECTION AND SUPERVISION OF FOOD.

**Milk.** Details were given in the Annual Report for many years past of the work carried out to improve the purity of milk produced or retailed in this district. These efforts were continued with increased vigour in the year under review. As control of the methods of production of milk at the farms is no longer under the jurisdiction of the local sanitary authority, difficulties were experienced in directing appropriate remedies in the cases where the milk was found to be unsatisfactory in purity. No longer is it allowable to visit the farm to oversee the methods of milking, to inspect the dairy, the washing and sterilising plants, or to give advice on better methods of milk production. All these matters, so useful in the control of hygienically pure milk, are now under the control of the Ministry of Agriculture, but the farms are seldom visited. Great emphasis is being placed upon the production of Tuberculin Tested Milk, whether the farm buildings are suitable or not, and little emphasis upon the bacterial purity of milk.

The bacteriological tests of Tuberculin Tested Milk throughout the year were unsatisfactory, so much so that consultation was arranged with one of the officials of the Ministry of Agriculture. The course of the discussion revealed many gaps in the procedure to ensure a pure milk supply. Any bacteriological tests or tests for keeping qualities were carried out in laboratories owned and run by the Dairymen's and Farmers' Associations. Truly a position which it would be difficult to dissociate from bias! The farms were not visited until several bad samples had been obtained. Dirty bottles were advanced as a reason for the bad results obtained from samples of Tuberculin Tested milk in this district but the Ministry's own regulations do not insist that the bottles must be sterilised at the farm where the milk is bottled. Washed bottles are allowed to be used and they need not be washed immediately before filling.

As there are too few competent trained officials of the Ministry who are capable of inspecting, supervising, and advising upon milk production, visiting of the farms can only be carried out at very long intervals.

The number of dairy farms in the district was 49 with rather less than 1,000 cows.

There were 9 dairy men, other than cowkeepers, in the area and 21 of the producers retailed milk in the district. Eight other retailers with premises outside this area also delivered milk.

Two cases of Scarlet Fever occurred at a milk producing farm. It was necessary to pay many visits to this farm to ensure that instructions were being obeyed. There was a definite attempt made to get round these instructions and firm action had to be taken. The milk was pasteurised before delivery.

Seventy-nine visits in all were made to farms to collect samples and for other purposes. Fifty visits were made to dairies for similar purposes.

The number of dealers' licences was as follows :—

Distributing T.T. milk—29.

Distributing Pasteurised milk—27.

Distributing Sterilised milk—2.

The number of samples taken of unpasteurised milk and submitted to tests for bacteriological purity was 163. Of these 130 were satisfactory, which was an improvement upon the results of the previous year. Sedimentation tests made upon 85 samples proved 83 to be satisfactory.

A hundred and twenty-eight samples were submitted to tests for the Tubercle Bacillus and one was found to be positive.

The efficiency of the heat treatment of milk was tested in 37 samples and only one was found to be insufficiently heat treated. The Methylene Blue test showed that all the 37 samples were satisfactory.

Nine samples of Accredited milk were submitted to tests for bacterial purity, 7 were satisfactory and one was found to contain the Tubercle Bacillus.

Altogether 121 samples of T.T. milk were submitted to bacteriological tests for purity, 96 of these were satisfactory, a percentage of 79, a very slight improvement upon the previous year. Ninety-two of them were tested for the presence of the Tubercle Bacillus and all of them were free.

The tables given below show the results for the last nine years :—

#### Undesignated Raw Milks.

Bacteriological Tests			Tests for Tubercle Bacillus		
Year.	No. of Samples.	Satisfactory.	Percentage Satisfactory.	No. of Samples	T.B. <sub>2</sub> Present
1944	146	98	67	148	1
1945	122	86	70	116	4
1946	101	78	77	101	2
1947	165	130	79	128	3
1948	184	146	79	159	2
1949	185	157	85	140	3
1950	96	81	84	48	3
1951	88	75	85	34	Nil.
1952	33	27	82	27	Nil.

#### Accredited Milks.

Bacteriological Tests			Tests for Tubercle Bacillus		
Year.	No. of Samples.	Satisfactory.	Percentage Satisfactory.	No. of Samples	T.B. <sub>2</sub> Present
1945	27	18	66	22	1
1946	4	3	75	4	Nil.
1947	43	34	79	38	2
1948	43	33	76	36	Nil.
1949	32	24	75	33	2
1950	36	26	72	26	1
1951	18	12	66	14	Nil.
1952	9	7	78	9	1

#### Tuberculin Tested Milks.

Bacteriological Tests			Tests for Tubercle Bacillus		
Year.	No. of Samples.	Satisfactory.	Percentage Satisfactory.	No. of Samples	T.B. <sub>2</sub> Present
1945	3	2	66	2	Nil.
1946	1	1	100	1	Nil.
1947	6	5	83	6	Nil.
1948	16	13	81	14	Nil.
1949	13	11	84	13	Nil.
1950	68	50	73	57	1.
1951	94	71	75	65	Nil.
1952	121	96	79	92	Nil.

Further details can be found in Mr. Graham's Report appended.

The one pasteurising plant in the district was not in use in 1952.

The licences issued were as follows : 17 for Pasteurised milk, 20 for T.T. milk, 10 supplementary licences for Pasteurised milk, 9 for T.T. milk and 2 for sterilised milk.

#### Tuberculosis Order, 1938.

One sample of the 128 tested was found to be positive and was reported to the County Medical Officer of Health, the Ministry of Agriculture and the Ministry of Food. The positive sample of milk was obtained from a local dairy but the milk was produced outside the district.

An order was issued to the retailer requiring the milk to be pasteurised ; no order was issued to the producer of the milk.

One cow was found to be Tuberculous in this herd and slaughtered under the Tuberculosis Order. Another cow had died on this farm and was sent to the knackers' yard.

There would appear to have been a lack of supervision of this farm.

When the herd had been declared free of Tubercle the order to pasteurise the milk was withdrawn.

### OTHER FOODS.

The poster cards issued to all food shops dealing with the admission of animals to such shops have been prominently displayed. On the whole they have been effective but certain members of the public have not co-operated.

Improvements have been made to shops as the result of visits and inspections. The comfort and convenience of the facilities provided for shop assistants were continually under observation. It was not necessary to take any action, further than advice, in those cases where minor defects had occurred.

#### Meat.

The Slaughter-house was well conducted throughout the year. Notice was given regularly of intention to slaughter and each animal slaughtered was fully examined. Where organs or portions of meat were found to be unfit for human consumption they were surrendered freely for condemnation. The owners of the slaughter-house were fully co-operative in this work. The time involved in these inspections was considerable but definitely well spent in the interest of the public.

Below is a record of horses slaughtered in the last eight years :—

1945	...	267	1949	...	260
1946	...	249	1950	...	280
1947	...	260	1951	...	318
1948	...	283	1952	...	252

#### Pigs.

A number of pigs were slaughtered privately. These carcasses were inspected by arrangement with the owners.

#### Shops.

Many of these were inspected under the Shops Act at the request of the County Council. Particular attention was devoted to those engaged in the sale or preparation of food. One shop, mentioned in last year's report on account of its overstocked state and defective cleanliness, was improved generally during the period under review. The shop keepers have been quite co-operative generally and willing to act upon advice given them.

#### Butchers' Shops.

Regular inspections were made of the nine shops in the district. The standard of cleanliness was good.

#### Bakehouses.

All twelve in the area were inspected regularly for cleanliness and to ensure that hygienic conditions were observed in baking. A reasonable standard was maintained.

#### Greengrocers' Shops.

Frequent visits of inspection were made to these. Cleanliness, owing to the nature of the goods sold, was difficult to attain, but the attempts to improve the standard were continued.

#### Hawkers' Vehicles.

Regular inspections were made of these and on the whole they were satisfactorily maintained. The majority of them were motor vehicles of the covered type. The premises on which these vehicles were based were inspected also and some of these required frequent visits to preserve due cleanliness.

#### Milk Carts and Vans.

Most of these were motor vehicles and all of them were inspected each time a sample of milk was taken. They were, on the whole, well kept and clean.

### ICE CREAM.

The efforts of past years to improve the bacteriological purity of this product were continued in 1952. Many of the retailers have ceased to produce their own ice cream and have transferred their activities to the sale of the wrapped varieties, the products of the large manufactureres. On the whole this ensured a more even standard of purity though some of these manufacturers still produced unsatisfactory samples. The week-end retailer, especially those of the barrow boy type, still presented a problem difficult of solution. The fact that the laboratory was not open at the week end complicated this problem.

Samples were taken from each retailer who sold ice cream each week day. Seventeen retailers were licensed.

Number of samples taken	...	...	...	...	...	46
Grade I (Excellent)	...	...	...	...	...	28
Grade II (Good)	...	...	...	...	...	10
Grade III (Poor)	...	...	...	...	...	6
Grade IV (Bad)	...	...	...	...	...	2

These results were not so good as in 1951.

Additional details will be found in Mr. Graham's report.

### QUALITATIVE EXAMINATION OF FOODS.

The County Council is the Authority for the examination of Food and Drugs. Under a recent Order these powers can be delegated to certain local sanitary authorities but there is a population minimum limit. Greater control could be exercised if the delegation were on wider limits and the question of competence were added to the population basis or substituted for it.

The County Sampling Officer (Mr. Kearley) assisted by Mr. Graham took samples in 1952 and Dr. Gawne, the County Medical Officer of Health, supplied the following information :—

A total of 74 samples was obtained, of these 38 were of milk (this total includes 4 Channel Island milks) and the 36 others comprised :—

1 Glauber's Salt	2 Tincture of Iodine
1 Parrish's Chemical Food	1 Curry Powder
1 Tomato Ketchup	1 Soft Drink, Concentrated
2 Gelatine	2 Coffee
1 Sauce	1 Mineral Water
1 Picnic Mustard Liquid, sweetened	1 Cod Liver Oil
1 Cherries Canned	1 Borax
2 Arrowroot	1 Malt, Milk and Cocoa Beverage
3 Cakes	2 Cocoa
1 Jam Tarts	2 Meat Pies
1 Milk and Malt Beverage	2 Compound Liquorice Powder
2 Pepper	1 Sponge Pudding Mixture
2 Boric Ointment	

All the samples were reported by the County Analyst to be genuine with the exception of the following :—

Sample.	Result of Analysis.	Action Taken.
1 Sponge Pudding Mixture	Sample contained only 0.14 per cent. available carbon dioxide and 1.6 per cent. fat. In addition, the sample was musty and contained live and dead mites.	Stock surrendered and destroyed. Packers communicated with suggesting that it should follow baking powder in list of ingredients
1 Tincture of Iodine.	Contained 1.99 per cent Potassium Iodine, i.e., 0.56 per cent. below minimum B.P. limit.	Vendor communicated with
1 Formal milk.	Deficient 6.6 per cent. fat.	Vendor notified.
1 Formal milk.	Deficient 6.6 per cent. fat.	Vendor notified.



## CONDEMNATION OF FOOD UNFIT FOR HUMAN CONSUMPTION.

The amount of food surrendered as unfit for human consumption was 428 lbs., consisting of fruit, eggs, vegetables, sausages, and tinned and fresh meats of various kinds. The amount was less than half that of last year. With the cessation of rationing of various commodities, and the reduced necessity to store food for long periods, it is anticipated that the amount of food for condemnation will be still further reduced.

It was not necessary to seize any food under a magistrate's order.

## WATER SUPPLY.

As in former years a report is appended from Mr. Holmes, the Water Engineer. It gives an account of the year's working of the Council's Water Undertaking.

The bacteriological quality of the water, as evidenced by numerous samples, continued to be satisfactory and the residual chlorine present in the supply quite sufficient for sterilisation purposes but insufficient to cause any complaints about taste and odour.

The chemical qualities of the water were excellent and plumbo-solvent action was absent.

During the year Manganese material in a crystalline form was found on the gauze strainers of certain mains. These deposits were of the high Manganese Peroxide type and whilst they might have given rise to mechanical obstruction to the water flow were quite innocuous to the consumer. Manganese is frequently found in solution in upland surface water but the reason for its deposition in crystalline form is still under investigation.

The Authority's supply was supplemented by supplies from the Fylde Water Board and by a small amount from the Preston Corporation Water Undertaking.

In last year's report the value of Fluorine in water as a preventive of dental caries in children was noted. Evidence of its value in certain districts of this country and in America, where much investigation has been made as to its effects, has been advanced. Further investigations under the auspices of the Ministry of Health are now taking place, and it would be premature to make any suggestions for its further use by additions to the water supply until these investigations have been completed.

In 1952 tests of the amount of Fluorine present in the Council's supply and in the Fylde Water were made. A mixed water (80 per cent. Fylde) examined in July showed .03 parts per million of Fluorine present. The Fylde water contained .075 parts per million.

As there were no cases of Enteric Disease in the district in 1952, it was not necessary to make special tests of the water supply for this purpose.

## SEWAGE AND SEWAGE CONTROL.

The methods of disposal were similar to previous years. The sewered part of the area functioned satisfactorily although the sewage disposal plant was overloaded. The effluent was on the whole satisfactory.

In the reports for many years past comments were made upon the bad conditions existant in Northern parts of the district where the overflows into the streams from the septic tanks caused a continual nuisance. The Ministry of Housing and Local Government at last yielded to the pressure and allowed a portion of the area to be sewered. Although it will not be possible for many months or even years to connect up all the houses in this area to the new sewers and to connect these new sewers to a suitable sewage disposal unit, negotiations taking place will doubtless provide a satisfactory solution.

The complete scheme for sewerage this north part of the district has not yet received official consent but until the scheme is complete the fouling of the streams will continue.

In the absence of heavy rain in the late autumn and the commencement of winter, by the end of the year these streams not only presented a foul appearance but their odour was most offensive at times. In last year's report they were described as open sewers. In 1952 there was, if anything, a deterioration of that position.

The culverting of these streams recommended in last year's report has not yet been approved. The cost will, without doubt, be not negligible, but the gain to the community will be incalculable. It should only be necessary to culvert these streams where they pass through the built up areas.

The making up of roads in this part of the district was bound up with the laying of sewers as a preliminary measure. In those roads where the sewer has been completed, the top finishing of the roads was in progress at the end of the year.

#### **Rivers and Streams.**

The Lancashire Rivers Board was responsible for the brooks and streams in the district but the local authority was also responsible. A description has been given above of the state of these streams in the north part of the area. The Savick Brook, with its rapid flow, remained comparatively clean though it received much contamination in its upper reaches.

Eaves Brook which marks the Southern boundary of the area is a joint responsibility with Preston Corporation. Part of it is culverted but the open part is considerably contaminated and its banks require frequent attention.

#### **Closet Accommodation.**

The water carriage system was practically universal throughout the district. It has already been noted that many of these water closets discharge to septic tanks.

The number of houses supplied with water—3,608.  
 The number of houses on the water carriage system—3,598.  
 The number of fresh water closets—3,860.  
 The number of privy middens—4.  
 The number of pail closets—7.

Two pail closets were converted to fresh water during the year. The additional houses numbered 47.

The variation in the number of houses supplied with water and other numbers, as compared with 1951, is accounted for by the transference of portion of the district to Preston Corporation. The portion referred to is situated in Watling Street Road East.

#### **Public Cleansing.**

The system of recent years was continued. A weekly service was in operation when upwards of five thousand movable ashbins were cleared.

A controlled tipping system was used with adequate provision for the control of pests.

The Health Department treated the tip with D.D.T. and other insecticides in the warmer months.

Frequent visits and inspections were made and treatment given for the destruction of rats and mice.

The service of public cleansing was the responsibility of the Engineer and Surveyor who was also responsible for the collection of salvage.

#### **Sanitary Inspections in the District.**

Mr. Graham's appended report gives extensive details of this most important part of the work of the Health Department. It has always been the custom of the department, particularly in recent years, to deal with complaints as soon as they have been reported. Many of these complaints were found on investigation not to be the responsibility of the Council, and some were found to be frivolous or unjustified, but all were fully investigated. The confidence of the public was thus continued, and their co-operation and readiness to remedy defects assured.

In 1952, 2,486 visits were made to 630 premises, almost 300 less than in the previous year. 255 defects or nuisances were discovered and of these 227 were abated. 136 received informal notices and statutory notices were served on 2 only. There were no legal proceedings.

The County Council is responsible for the Shops Act, 1950, and on their request 59 visits were made to shops and 3 visits were made under the Public Health Act, 1936. These inspections were additional to those mentioned above.

### **Housing.**

The standard of housing in this district has always been a high one. As a residential area it has been the policy of the Council to maintain that high standard.

During the year under review 47 new houses were completed, 10 by the Council, 25 by private enterprise, and 12 by a Housing Association. The latter 12 were for key workers.

The number of houses inspected for defects was 132 requiring 479 visits for that purpose. 110 of these houses were found not to be in all respects reasonably fit for human habitation but 99 were rendered fit as the result of informal action. Two required formal notices and were made fit in consequence thereof. Five houses were found to be dangerous or injurious to health but these were previously reported and await demolition when the inhabitants can be established in other accommodation. One house was demolished as the result of an order.

It should not be necessary to emphasise that any defects discovered were of a minor character only (damp, down spouts, slates, chimneys, etc.) and were easily abated. They did not indicate that the premises were unfit for human habitation or that the houses required replacement.

Further details will be found in Mr. Graham's report.

### **Overcrowding.**

Four cases of overcrowding involving 6 families and 28 persons were investigated in 1952. Two of these were new cases consisting of 8 persons.

Eight cases, comprising 69 persons, were relieved during the year.

Reports upon all these cases were made to the Housing Committee by Mr. Graham during the year under review.

The card index system established by Mr. Graham for new housing applications has worked well. Less than 200 applicants were on the list at the end of the year.

### **School Accommodation.**

The schools still exhibited somewhat overcrowded conditions though the additions to the Kennington Road Infant School should help to relieve this position.

The new Senior School was still uncompleted at the end of 1952.

The further schools in contemplation did not advance further.

There were six schools in the district, all on the water carriage system, with satisfactory yards, and with sanitary conveniences, though at times overloaded, of a satisfactory character. Most of them had facilities for handling meals.

### **Factories Act.**

There were 26 factories or workshops on the register. All were inspected during the year necessitating 54 visits. Where it was necessary to suggest improvement these were readily completed.

### **Private Street Works.**

The making up of Brackenbury Road was completed. The new sewer laid in the north portion of the district made it possible to commence the making up of Parklands Drive, Parklands Grove and Hillcrest Avenue.

A new footway was constructed in Cadley Causeway.



### **Smoke Abatement.**

Strict inspections were made of the character of the smoke emitted by the two chimneys which had caused so much nuisance in past years. As the result of this, and the many adverse reports made, the chimney at Sharoe Green Hospital and the Civic Hostel showed a much improved effluent. New stoking and better boilers and possibly better fuel have now made the smoke from this chimney almost free from nuisance.

The other one at the Troy Laundry continued throughout the year to vomit out black smoke. The complaints from the residents around were many and forcible.

Preston Corporation also made many complaints about this chimney and threatened legal action against the owners.

The Council passed the necessary resolution for the adoption of Bye-laws but up to the end of the year the Ministry concerned withheld its approval on one pretext or another. Without these Bye-laws it is impossible to supply sufficient pressure to determine the nuisance.

Reports upon the emission of domestic smoke have been made to the Council with a view to the reduction of fog in the winter months. The formation of a smokeless area was recommended.

### **Burial Ground.**

The responsible head of the Carmelite Convent made application to be allowed to establish a burial ground within the precincts of their own grounds for deceased members of the Order. Many inspections were made of the plot suggested and adjacent plots. Trial graves of the requisite depth were dug and especial attention devoted to the question of drainage.

The plot selected was well shielded by a high wall, well drained and entirely suitable.

The Mother Superior of the Convent was informed of all the regulations governing burial in this site and supplied with a copy of them.

The Council, on the recommendation of the Medical Officer of Health, approved the site and the Planning Authorities raised no objections to its use.

### **Rodent Report.**

Mr. Marsh pursued his work of the extermination of rats and mice with vigour. He has written a report on this work and the results achieved. This report is appended.

### **New Legislation in 1952.**

Public Health (Meat) Amendment Regulations, 1952.

Public Health (Tuberculosis) Regulations, 1952.

Ice Cream (Heat Treatment) Amendment Regulations, 1952.

Public Health (Aircraft) Regulations, 1952.

Preston (Extension) Order, 1952.

Adoption of Food and Drugs Act, 1938, Sections

### **Appended Reports.**

- (1) Report of Mr. Graham, Sanitary Inspector.
- (2) Report of Mr. Elce, Acting Engineer and Surveyor.
- (3) Report of Mr. Holmes, Water Engineer.
- (4) Report of Mr. Marsh, Rodent Officer.



The work of the Health Department in 1952 again owed much to the energy, skill, and tact with which Mr. Graham discharged his duties. Mrs. Braithwaite changed her residence to Eccles and so severed her connections with the department. Miss Carter, courteous, reliable, keen, has given most excellent service. Mr. Marsh, quietly efficient, has carried out his work well and has always been ready to render assistance.

In conclusion I should like to express my appreciation of the encouragement, courtesy, and support given to me by every member of the Council and to the help, co-operation and kindness of all the officials.

I am,

Your obedient Servant,

G. G. WRAY,

May, 1953.

Medical Officer of Health.

# SANITARY INSPECTOR'S ANNUAL REPORT —1952

Mr. Chairman and Members of the Council,

During the year 1952 there was a slight reduction in the total number of inhabited houses in Fulwood due to the transfer of about 100 acres to the County Borough of Preston. The reduction was partly offset by the building of new houses, and the final figure shown in the rate book was 3,608, which does not include houses used as married quarters at the Fulwood Barracks.

Nearly ten per cent. of all the houses in the district were visited during the year, many of them on several occasions, to enquire into overcrowding conditions, to inspect for housing defects, to investigate and help to control outbreaks of infectious disease or to advise on some problem of environmental Public Health.

Eight cases of overcrowding involving 69 persons were relieved during the year and only two new cases were discovered. Defects were remedied at about 100 houses and there were 18 disinfections.

Two statutory notices and 136 informal notices were served for the remedying of nuisances and defects at dwelling houses and other premises. Fifteen notices only were outstanding at the year end.

Rodent Control visits were paid to 283 houses and 105 other premises. Mr. Marsh efficiently carried out the practical work of survey and control required by the Ministry of Agriculture under the terms of the Prevention of Damage by Pests Act, 1949.

The appended tables show in detail the scope and purpose of the various visits and some of the results. There is also a copy of the report required by the Ministry of Agriculture under the Prevention of Damage by Pests Act, 1949.

Food supervision has again been dealt with under the headings of milk and other foods.

## Details of Sanitary Improvements.

Sanitary Improvements.	Number of Premises
Brickwork repaired ... ..	11
Disinfections ... ..	18
Drains repaired ... ..	53
Factory Canteen provided ... ..	1
Floors renewed ... ..	2
Gutters renewed ... ..	7
Plasterwork renewed ... ..	4
Premises cleansed ... ..	2
Rain water fall pipes repaired ... ..	6
Roofs repaired ... ..	15
Sanitary accommodation improved ... ..	12
Septic tank renewed ... ..	3
Ventilation improved ... ..	7
Woodwork renewed ... ..	10
Yards paved ... ..	4
Sundry Public Health nuisances abated ... ..	23

## Details of Sanitary Inspections, 1952.

Type of Premises.						No. of Visits	No. of Premises	No. of Public Health nuisances and defects existing                  abated			
Licensed Slaughter House	...	...	...	...	...	243	1	...	2	...	1
Farms	...	...	...	...	...	87	61	...	7	...	7
Dairies	...	...	...	...	...	46	9	...	1	...	1
Bakehouses	...	...	...	...	...	65	12	...	2	...	1
Other Food Premises	...	...	...	...	...	185	43	...	5	...	3
Factory Act	...	...	...	...	...	46	26	...	3	...	2
Institutions	...	...	...	...	...	16	7	...	1	...	1
Schools	...	...	...	...	...	8	6	...	1	...	1
Shops Act	...	...	...	...	...	61	51	...	2	...	1
Houses—Advisory	...	...	...	...	...	67	29	...	17	...	16
Drainage	...	...	...	...	...	263	67	...	55	...	53
General Defects	...	...	...	...	...	149	36	...	38	...	30
Housing Applicants	...	...	...	...	...	87	78	...	12	...	8
Infectious Disease	...	...	...	...	...	82	51	...	18	...	18
Rodent Control	...	...	...	...	...	835	388	...	68	...	63
Tips	...	...	...	...	...	103	9	...	6	...	5
Miscellaneous	...	...	...	...	...	148	56	...	17	...	16
Total	...	...	...	...	...	2486	630	...	255	...	227

**PREVENTION OF DAMAGE BY PESTS, ACT, 1949.**  
**REPORT FOR THE YEAR ENDED 31st DECEMBER, 1952.**

	Local Authority	Dwelling Houses.	Agricultural.	All other including Business and Industrial	Total.
I. Total number of properties in Local Authority's District .....	5	3608	61	123	3797
II. Number of properties inspected by the Local Authority during 1952 as a result (a) of notification or (b) survey or otherwise.	(a) Nil (b) 5	44 239	Nil. 53	4 43	48 340
III. Number of properties found to be infested by rats .....	Major 1 Minor 1	Nil 31	Nil. 6	Nil. 4	1 <del>32</del> 42
IV. Number of properties found to be seriously infested by mice .....	1	6	Nil.	4	11
V. Number of infested properties treated by Local Authority .....	3	37	Nil.	4	44
VI. Number of notices served under Section 4: (1) Treatment. (2) Structural Works. (i.e. Proofing)			Nil. Nil.		
VII. Number of cases in which default action was taken by Local Authority following issue of notice under Section 4.			Nil.		
VIII. Legal Proceedings.			Nil.		
IX. Number of "block" control schemes carried out .....	3				

**Food Supervision.**

**Milk.**

As in previous years milk samples have been taken throughout the year and submitted to the Bacteriologist at the Preston Royal Infirmary for examination. Where practicable, portions of samples have also been submitted to the Sediment Test and other simple practical tests at the Public Health Department.

Results seem to indicate some improvement on those of the two previous years.

The Tubercle bacillus was found in only one of the samples submitted for analysis.

The efficiency of pasteurisation of samples tested was again high.

It is of interest to note that at least one Producer Retailer of milk in Fulwood has sold milk clean enough and pure enough to pass every test to which it has been subjected during the last six years.



His recipe for success is constant care and attention. He has no T.T. herd, indeed his farm is not even Accredited, but he has always co-operated and his contribution to the health of the district is an example for all. His farm is almost within a stone's throw of the residence of the Medical Officer of Health, but perhaps this is pure coincidence.

### Milk Sampling Results, 1952.

					Total number of samples		Number of satisfactory samples		Number of unsatisfactory samples		Percentage of satisfactory samples
<b>(A) Raw Milk.</b>											
Undesignated—											
(I)	Tuberculosis test	...	...	...	27	...	27	...	nil	...	100
(II)	Meth. Blue test	...	...	...	33	...	27	...	6	...	82
(III)	B. Coli test	...	...	...	33	...	29	...	4	...	88
Accredited—											
(I)	Tuberculosis test	...	...	...	9	...	8	...	1	...	89
(II)	Meth. Blue test	...	...	...	9	...	7	...	2	...	78
(III)	B. Coli test	...	...	...	9	...	7	...	2	...	78
Tuberculin Tested—											
(I)	Tuberculosis test	...	...	...	92	...	92	...	nil	...	100
(II)	Meth. Blue test	...	...	...	121	...	96	...	25	...	79
(III)	B. Coli test	...	...	...	121	...	106	...	15	...	88
All Raw Milk—											
(I)	Tuberculosis test	...	...	...	128	...	127	...	1	...	99
(II)	Meth. Blue test	...	...	...	163	...	130	...	33	...	80
(III)	B. Coli test	...	...	...	163	...	142	...	21	...	87
<b>(B) Pasteurised Milk.</b>											
(I)	Phosphatase test	...	...	...	37	...	36	...	1	...	97
(II)	Meth. Blue test	...	...	...	37	...	37	...	nil	...	100

### OTHER FOODS.

#### Horse Meat

There is one slaughter-house licensed by the Local Authority for the slaughter of horses for human consumption. This has been visited daily throughout the year on occasions when horses have been slaughtered; the carcasses of 252 horses have been inspected and have been passed fit for human consumption, with the exception of 55 livers and 25 lbs. of meat.

With constant supervision, conditions have been reasonably satisfactory.

#### Pigs.

A number of pigs slaughtered privately and not for sale have been inspected by arrangement with the owners, as in previous years, and any meat found unfit for human consumption has been voluntarily surrendered.

#### Meat Products.

There have been frequent visits to premises where these products are manufactured in the district. Producers are aware of their responsibility and are making efforts to maintain a high standard in their premises, personnel and product.

#### Bakehouses and Restaurant Kitchens.

Most of the premises are satisfactory but in a few cases insufficient space makes working conditions difficult.

Frequent visits are paid to these premises and co-operation between management, staffs and Public Health Department is generally good.

**Ice Cream.**

During the year 46 samples have been tested. Thirty-eight of these have been satisfactory and eight unsatisfactory. The ice cream sold in the district has been from eight producers only. Samples from five of these were entirely satisfactory. Details of the other three are shown in the second table.

**Grading of Ice Cream.**

	1947	1948	1949	1950	1951	1952
Number of Samples ... ..	51	66	82	65	49	46
Number Grade I. ... ..	19	35	42	32	38	28
Number Grade II. ... ..	13	15	23	18	10	10
Number Grade III. ... ..	11	10	15	6	1	6
Number Grade IV. ... ..	8	6	2	9	Nil	2
Percentage satisfactory ...	62.5	76	80	77	97.9	82.6

	No. of samples.	Grade I.	Grade II.	Grade III.	Grade IV.
Producer A. ... ..	2	—	—	—	2
Producer B. ... ..	9	3	4	2	—
Producer C. ... ..	12	6	2	4	—

The following 428 lbs. of food were surrendered after being inspected and found unfit for human consumption. Much of it was at N.A.A.F.I. premises at the Barracks, where, in addition to the grocer's shop and restaurant, there is still a large warehouse supplying units in the North West.

**Fruit—**

Apples ... ..	74
Citrous Fruit ... ..	73
Canned Fruit ... ..	19
	<hr/>
	166 lbs.

**Proteins—**

Eggs ... ..	15
Poultry ... ..	20
Canned Meat ... ..	93
Canned Milk ... ..	5
	<hr/>
	133 lbs.

**Vegetables—**

Carrots ... ..	19
Tomatoes ... ..	38
Canned Vegetables ... ..	61
	<hr/>

118 lbs.

**Sundries—**

Chocolate ... ..	6
Tea ... ..	5
	<hr/>

11 lbs.

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 Total ... 428 lbs.

This report cannot adequately be concluded without an expression of thanks to the Chairman, The members of the Council and the Medical Officer of Health, whose support individually and collectively during the year has been greatly appreciated, and to my colleagues for their generous co-operation.

Yours faithfully,

R. GRAHAM,

Sanitary Inspector.

# REPORT of ACTING ENGINEER and SURVEYOR

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## Public Lighting.

Group "B" schemes of lighting were installed in:—

- (a) Watling Street Road from Deepdale Road to Cromwell Road.
- (b) Black Bull Lane from Lytham Road to Beacon Grove.

A Group "A" scheme of lighting was installed in Plungington Road, between Lytham Road and the Preston Boundary.

Additional gas lighted lamps have been installed in various "black spots" in the District.

## Private Street Works.

The making-up of Brackenbury Road was completed.

A new sewer was laid in the East footway of Garstang Road from Sharoe Brook to a point north of Highfield Drive, making it possible to proceed with the making-up of private streets in the Parklands Drive area.

A contract has been entered into for the making-up of Parklands Drive, Parklands Grove and Hillcrest Avenue.

The Private Streets problem has been under continuous consideration during the past year and an extensive programme has been agreed with the Ministry of Housing and Local Government for 1953.

## Highways.

The usual maintenance work on classified and district roads was carried out.

Footways were constructed on the south side of Cadley Causeway between Black Bull Lane and Mill Lane.

Renumbering of properties in Woodplumpton Road, Plungington Road, Brackenbury Road, Blundell Road and Houldsworth Road was effected.

## Sewerage.

Meetings have been held between the officers of the local authorities concerned in the suggested joint sewerage scheme, and it is hoped to submit a report to the Joint Committee at an early date.

As reported last year, work on the Council's main outfall sewers is held up until the full joint scheme has been submitted to the Ministry.

## Sewage Works.

The works operated satisfactorily throughout the year, and the tanks were cleaned out as follows:—

Detritus tanks	...	...	...	...	...	...	104
Settling tanks	...	...	...	...	...	...	18
Humus tanks	...	...	...	...	...	...	63

A crop of 19 tons of mangolds were grown and sold for £47 10s. 0d.

**Refuse Collection and Salvage.**

A weekly collection of house refuse was maintained throughout the year.

Disposal continued to be carried out by means of controlled tipping.

The following tonnage of materials was salvaged during the year:—

						Tons		Cwts.		Revenue £.
Paper	...	...	...	...	...	178	...	17	...	1,843
Rags	...	...	...	...	...	4	...	2	...	104
Ferrous Metals	...	...	...	...	...	42	...	2	...	119
Non-ferrous Metals	...	...	...	...	...	—	...	3	...	23
Kitchen Waste	...	...	...	...	...	137	...	0	...	440

**HOUSING.****Council Housing.**

The Watling Street Road site scheme was completed.

Work on ten houses in Lulworth Road was started, and it is hoped to make an early start on 8 houses in Beech Street and 6 houses in Lythcoe Avenue.

**Private Enterprise Housing.**

At the beginning of 1952, 33 houses were under construction by private enterprise. Twenty-five houses were completed and 24 houses were started in 1952.

**Kingsway Housing Association.**

Twelve houses were built in 1952 on a site in Watling Street Road for housing key-workers employed by the English Electric Co., Limited.

The total number of houses completed during the year 1952 was:—

Council Houses	...	...	...	...	...	...	...	...	...	10
Private Enterprise	...	...	...	...	...	...	...	...	...	25
Kingsway Housing Association	...	...	...	...	...	...	...	...	...	12
										<hr/> 47 <hr/>

**General.**

The various Council properties were maintained.

TOM ELCE.

Acting Engineer and Surveyor.



# REPORT of WATER ENGINEER

Mr. Chairman and Members of the Council.

## Water Supply, 1952.

I have pleasure in submitting my Annual Report for the year ending December 31st, 1952.

### Area Supplied.

The Statutory Area of Supply comprises the Urban District of Fulwood and the parishes of Broughton, Goosnargh, Houghton, Whittingham and parts of each of the parishes of Grimsargh and Lea in the parish of Lea, Ashton, Ingol and Cottam. The total area is approximately 30 square miles.

The total number of premises being supplied at the end of the year was 4,814, of which 3,697 were within the Urban District and 1,117 in the Rural Areas.

Included in the above-mentioned total are 103 premises supplied through meters.

### Rainfall.

A comparison of the amounts of rainfall recorded at the Council's two stations during the year with the previous year's totals and a 12 years' average is set out below:—

	Height above sea level in feet	Average of 12 yrs.	1951.	1952.
Barnsfold .....	508.37	47.37 inches	56.28	46.92 inches
Houghton .....	264.00	41.02 inches	46.88	37.80 inches.

The wettest month at the Barnsfold Gathering Grounds was August, with 7.63 inches compared with last year's 10.88 inches in December, the next highest was December with only 4.93 inches, and the driest month being February with 1.62 inches.

The heaviest daily rainfall occurred on August 9th, when the Barnsfold and Houghton readings were 2.07 inches and 1.91 inches respectively. There were 148 days with no rain.

### Quantity Supplied.

The total quantity of water supplied to the whole of the distribution area during the year was 359,747,000 gallons, which represents an average daily supply of 982,915 gallons, an increase of approximately 0.2% over last year's figure, and equal to the quantity delivered during 1950.

This supply was derived from the following sources:—

Barnsfold and Saddle Fell .....	278,166,000 gallons
Fylde Water Board main .....	77,430,000 „
Preston County Borough main .....	3,514,000 „
Manchester Corporation's aqueduct .....	637,000 „

The maximum daily flow recorded at Barnsfold Reservoirs was 1,200,000 gallons on November 29th.

The minimum quantity in storage was 34 million gallons on December 11th, compared with 33.6 million gallons in the previous year.

### Treatment and Quality.

As in previous years pre-chloramination was carried out at the inlets to the reservoirs by means of a continually operated manually controlled chlorinator and ammoniator, the dose being regulated to give as far as possible a residual of approximately 0.6 parts per million at the inlet cills.

Immediately on leaving the reservoirs all water going into supply was given a further small dose of chloramine by means of a Wallace & Tiernan's chlorinator and ammoniator, the quantities injected being controlled automatically by the differential pressures from a Venturi Tube. A dose of between 0.1 and 0.2 parts per million generally ensured a small chlorine residual throughout the distribution system.

At both the inlet and outlet plants the ratio of chlorine to ammonia was 4.1. Throughout the year tests to ascertain the residuals were taken at least daily and in the case of the inlet plant more frequently when circumstances demanded it. Chlorine residual, pH and Hazen value tests were carried out at regular intervals on samples drawn from various parts of the supply area.

As last year the portable manually controlled chlorinator was installed at Barnsfold during the winter months to take over in the event of power cuts, but fortunately it was not required for that purpose.

Mr. S. E. Melling, M.Sc., F.R.I.C., the Council's Consultant Analyst took 11 samples from the reservoirs after treatment, and from various consumers' premises. The results of the analyses were:—

B. Coli absent in 100 ml.—10 samples. ~~THE FOLLOWING TABLE SHOWS THE RESULTS OF THE ANALYSES OF THE SAMPLES TAKEN FROM THE RESERVOIRS AND FROM VARIOUS CONSUMERS' PREMISES.~~

The Analyst's remarks on the remaining sample were:—

“The response in the McConkey test was entirely negative on 50 ml. when incubated over a complete period of forty-eight hours, and whilst it is true that one ml. tube only gave a sluggish and slightly positive reaction in twenty-four hours, this can, in my opinion, be attributed to a purely ephemeral contamination at the time of sampling—atmospheric or otherwise.”

In addition one full chemical analysis was carried out during the year.

Typical chemical and bacteriological reports are set out at the end of this Report.

At the end of June a fairly large quantity of small black flakes appeared in the mains in the Fulwood District and immediate action was taken to identify the deposit to ensure it was not in any way injurious to the consumers. It was found to be mainly a combination of sesquioxide and dioxide of manganese with oxide of iron and some silica and occurred only when the Fylde water was being taken.

### Distribution and Maintenance.

The following summary indicates the work carried out under this heading:—

- No. of inspections at consumer's premises—936.
- No. of stopcocks cleaned—44.
- No. of sieves cleaned—313.
- No. of mains fittings (valves, hydrants, etc. repaired)—32.
- No. of mains flushed—766.
- No. of service leakages repaired—198.
- No. of service connections made to the mains—77.
- No. of fittings re-washed—2,549.
- No. of burst mains repaired—15.
- No. of covers refixed—314.
- No. of meters changed—15.
- No. of hydrants converted to screwdown pattern—6.

In addition new 3-in. or 4-in. diam. mains were laid in the following roads—Longley Lane, Goosnargh, Longsight Lane, Grimsargh, Hazelmere Road, Chestnut Drive, Janice Drive, Beech Street and Lulworth Road, comprising in all 1,167 yards. (All were sterilised before being put into use).

Of this 1,167 yards, 227 yards of 3-inch at Grimsargh replaced an old 1½-in. cast-iron main.

The total length of mains now supplying the area is 70.2/3rds miles.

Routine night inspections for the sounding of all mains, service pipes and fittings were carried out with very satisfactory results.

All sluice valves and air valves on the trunk and larger distribution mains were inspected, oiled and tested during the year.

A complete survey of fittings in use on 157 farms was made with a view to installing meters, and a draft scheme was prepared but no further action has yet been taken.

At Barnsfold the reservoirs, intakes, buildings, etc., were maintained in good condition throughout the year. A new Venturi Flume Recorder was installed at the No. 1 Inlet and involved the casting and placing of 32 feet of 42-in. diameter concrete flume chamber and throat with semi-circular invert, laying 75 yards of 21-in. diameter and 72 yards of 18-in. diameter concrete pipes and building manholes and recorder house. The whole has operated very satisfactorily.

In the Nursery 6,000 young Sitka Spruce trees were planted making a total of 33,000 at the end of the year.

During the year a revised estimate was prepared for the proposed scheme to afford a piped supply to 57 farms and 45 other properties in the Inglewhite Area.

On notification from the Fylde Water Board of their intention to terminate their Agreement to afford a bulk supply on existing terms a scheme was prepared for abstracting water from underground resources. This proposal consisted of the sinking of a borehole into the water-bearing Bunter Sandstone underlying part of the area, pumping to Haighton Reservoir and there softening by a modern selective base-exchange process. The Council's Analyst and a Consulting Engineering Geologist, Mr. Edgar Morton, M.Sc., P.A., Inst.W.E., Hon. M.I.Q., were employed to advised in their respective capacities. The ultimate filtration of the Barnsfold supply and the covering of the service reservoir were also envisaged. At the end of the year this and other alternatives were under consideration.

### TYPICAL DETAILED ANALYSIS.

Sample taken from Lower House Farm, Goosnargh, on 30th December, 1952, Ref. No. 270 (b).

### Physical Characteristics of 270(b).

A clear but very slightly yellowish-brown water, free from odour and deposit.

pH., 7.1.

[illegible]

## BACTERIOLOGICAL ANALYSES.

Samples taken:—

March 15th, 1952  
No. 263 (b)November 21st, 1952  
No. 268,

B. Coli. aerogenes ..... Negative in both samples in the full range of tubes put up.

Probable number (per 100 ml.) ..... 0. .... 0.

Plate Count ..... No. of colonies developing on yeastrel agar  
Nil.

2 days at 37°C. .... 10. .... 1.  
plus a few moulds ..... Mycoids

In conclusion, I wish to thank all who have assisted in the preparation and carrying out the work of the undertaking.

I am, Gentlemen,

Your obedient Servant,

NORMAN HOLMES,

Waterworks Engineer



## RODENT REPORT, 1952.

Mr. Chairman and Members of the Council,

During the year 1952, fifty-five complains of rodent infestation were received from occupiers of premises and nine infestations were found during survey, forty-eight treatments were made. Thirty-seven for rat infestation and eleven for mice. Ninety bodies were found after poison treatment. Fifty rats were killed by traps and seventy-two mice were also killed by traps.

During survey, three hundred and eighty-eight properties were visited, forty-eight after notification and three hundred and forty visited for inspection.

The Council's Sewage Works at Cottam was treated, also the Council's tips. Test baiting and Maintenance treatment of sewers were also done. Results again showed only slight infestation. Private tips and waste land were frequently visited. Farms and business premises were also visited during survey.

Where infestation was due to defects in property, advice was given and after inspection by the Sanitary Inspector (Mr. Graham) properties were made good.

Poisons used during treatments were—Arsenic, Red Squill, Zinc Phosphide and Warfarin. Co-operation by occupiers was good.

Thanking you for your trust and confidence.

Yours sincerely,

J. J. MARSH.





